

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

690 Walnut Ave.St. 150

Vallejo, CA 94592-1133

(707) 649-5453

(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-011740**Date Inspected:** 15-Jan-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	N/A	<b>CWI Present:</b>	Yes	No			
<b>Inspected CWI report:</b>	Yes	No	N/A	<b>Rod Oven in Use:</b>	Yes	No	N/A
<b>Electrode to specification:</b>	Yes	No	N/A	<b>Weld Procedures Followed:</b>	Yes	No	N/A
<b>Qualified Welders:</b>	Yes	No	N/A	<b>Verified Joint Fit-up:</b>	Yes	No	N/A
<b>Approved Drawings:</b>	Yes	No	N/A	<b>Approved WPS:</b>	Yes	No	N/A
				<b>Delayed / Cancelled:</b>	Yes	No	N/A
<b>Bridge No:</b>	34-0006	<b>Component:</b>	OBG				

**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

**Blast Shop #1**

This QA Inspector received ZPMC Notice of Inspection request number 2516 that states "The attendance of ABF and CalTrans inspection personnel are requested to carry out inspection of surface preparation and or coating application." This Notice of Inspection request states the inspection of "OBG 8BE internal entire floor from the weld seam to PP67 and PP67 to PP66 is to be performed on 1-16-2010 at 0030 hours in Blast Shop #1. At around 0030 hours this QA Inspector along with Caltrans QA Inspectors Mr. Mike Hasler and Mr. George Goulet arrived at Blast Shop 1 and observed ZPMC personnel were performing blasting operations of OBG 8BE. A ZPMC supervisor, who does not appear to speak any English informed this QA Inspector that ZPMC will not be ready for visual inspection of 8BE until tomorrow morning at around 0630 hours. This QA Inspector went to the ZPMC QC office and the QC personnel in the office confirmed this inspection will not be ready for several hours.

**OBG Bay 14**

This QA Inspector observed ZPMC has moved many of the OBG Traveler Rails that had previously been in OBG



# WELDING INSPECTION REPORT

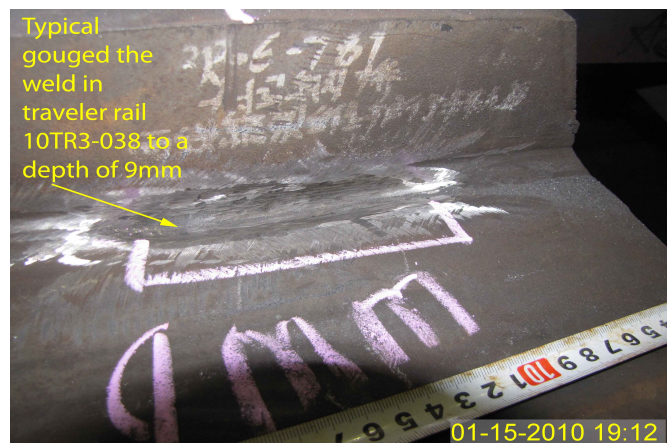
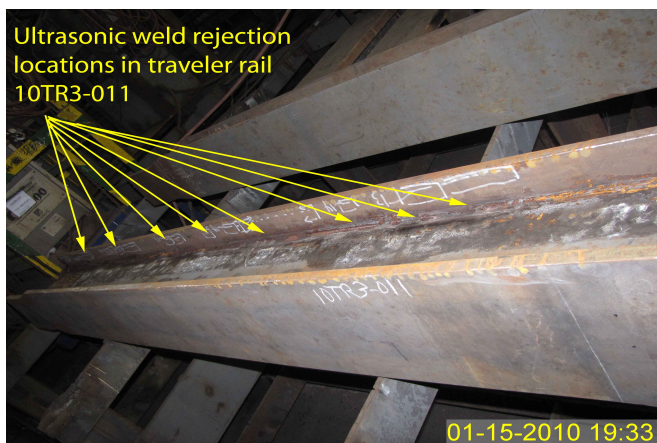
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Bay 5 to the front of OBG Bay 14. ZPMC has one person using air carbon arc to gouge out ultrasonic rejections in various traveler rail web plates, and two people are using electric grinders where the air carbon arc had been used to remove weld defects.

Traveler rail 10TR3-011 has approximately 30 locations where ZPMC ultrasonic Inspectors have marked ultrasonic rejections, and ZPMC does not appear to have started repairs of these locations.

Traveler rail 10TR3-038 has fifteen locations where ZPMC appears to have used the air carbon arc process to remove portions of the web plate lower weld (no number identified) and each of these locations appear to have been ground to a bright metal condition. This QA Inspector measured the depth of each of these fifteen locations and observed that the average depth is approximately 8mm and the deepest gouged area is approximately 11mm. The nominal thickness of this web appears to be 15mm and the two locations which have 11 mm grind depth will require a critical weld repair to be issued and approved prior to welding (no number identified). Note: no ZPMC QC or ABF representatives were observed in this bay.

Traveler rail 10TR3-022 has a bow over the 10 meter length and this QA Inspector will attempt to measure the extent of this bow at a later time. This QA Inspector observed ZPMC has a notebook sitting on one of the traveler rails and this notebook appears to contain heat straightening documentation, but no personnel appear to be performing heat straightening during this shift. See the photographs below for additional information.



## Summary of Conversations:

See Above.

## Comments



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## WELDING INSPECTION REPORT

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This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Dawson,Paul	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

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